

REMARKS

Claims 1-22 and 24-53 are pending.

Claims 1-22 and 24-53 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-75 of U.S. Patent No. 6,221,330. Applicants note with gratitude that pending claims 2, 3, 10, 11, 15, 16, 18, 20 and 22 were indicated to be allowable over the prior art. Applicants will consider offering to file a terminal disclaimer to overcome the obviousness-type double patenting once the remaining pending claims 1, 4-9, 12-14, 17, 19, 21, and 24-53 have also been determined to be allowable over the cited art. Thus, the Examiner is respectfully asked to hold this issue in abeyance until these claims are all otherwise allowable.

Claims 1, 4-9, 12-14, 17, 19, 21 and 23 were under 35 U.S.C. § 102(a) as being anticipated or in the alternative under 35 U.S.C. § 103(a) over the article by Sen et al.

Applicants submit that a prior art reference must contain all the elements for the claimed invention to “anticipate” the claimed invention. *Lewmar Marine Inc. v. Barient Inc.*, 3 U.S.P.Q. 2d 1766 (Fed. Cir. 1987). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. See *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984). To establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); MPEP § 2143.03.

Not only must a prior art reference contain all the elements of the claimed invention to anticipate or render obvious the claimed invention, but it must also be enabling. *Beckman Instruments Inc. v. LKB Produkter AB*, 892 F. 2d 1547, 1551, 13 USPQ2d 1301, 1304 (Fed. Cir. 1989) (“A prior art reference must be enabling...it must provide a description sufficient to teach a person of ordinary skill in the art how to make and use the apparatus or process”). Sen does not teach the production of single wall nanotubes nor does Sen disclose all of the process limitations

as claimed in the present application. At best, Sen only speculates that single wall nanotubes can be generated by his process. Sen states on p. 279, col. 2, lines 7-10 (emphasis added), that

By adjusting the relative concentrations of ferrocene and benzene in the vapour phase it should be possible to preferentially obtain single-walled nanotubes by this technique.

Thus, while Sen may be enabling for producing multiwall carbon nanotubes, Sen's speculation of the possibility of making single wall nanotubes is not enabling for generating hollow single wall nanotubes. The fact that Sen did not obtain single wall nanotubes even though they were preferred, or much less hollow single wall nanotubes, confirms that his teaching is not enabling for generating single wall nanotubes or hollow single wall nanotubes. One of ordinary skill in the art would need to perform undue experimentation to obtain Applicants' claimed process, if it is even at all possible from the teachings of Sen.

Further confirmation of the nonenablement of Sen's teaching is the fact that no other person of ordinary skill in the art demonstrated the generation of single wall nanotubes by the claimed process at the time of Applicants' invention.

While Sen may have suggested that it is possible to obtain single wall nanotubes, obvious to try is not the standard for determining obviousness. *In re O'Farrell*, 7 U.S.P.Q. 2d 1673 (Fed. Cir. 1988); *Ecolchem, Inc. v. Southern California Edison Co.*, 56 U.S.P.Q. 2d 1065 (Fed. Cir. 2000). Accordingly, the teachings of the Sen reference or any other reference at the time of the invention was made does not render the presently claimed subject matter unpatentable.

Therefore, Applicants respectfully submit that the rejection under 35 U.S.C. §§ 102(a) and 103(a) is improper and should be withdrawn.

No additional fee is believed due. If there are any such fees, the Commissioner is authorized to charge any deficiency or credit any overpayment to our Deposit Account 50-0540.

Respectfully submitted,

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